

To: Allen Sorenson[Allen.Sorenson@state.co.us]
From: Way, Steven
Sent: Fri 7/10/2015 12:24:44 AM
Subject: Fwd: Conference call

Allen - can you do a tomorrow after 10 AM ? 1230 or later would be best for me.

Sent from my iPhone

Begin forwarded message:

From: "Matt Francis" <m.francis@erllc.com>
To: "Way, Steven" <way.steven@epa.gov>
Subject: Fwd: Conference call

Set a time. Irritates me that he can't let go of the road issue without seeing it first. Of course, I do agree that the access road needs as much work as you'll allow.

Sent via the Samsung Galaxy Note® 3, an AT&T 4G LTE smartphone

----- Original message -----

From: Mark Levin <mark.levin@minenv.com>
Date: 07/09/2015 5:59 PM (GMT-07:00)
To: Matt Francis <m.francis@erllc.com>
Cc: willbere@rvi.net
Subject: RE: Conference call

Hi Matt:

10 AM or later would be best for me. Please confirm time and call-in number as soon as possible.

If you know of items that the other call participants are likely to have on their agenda (s), please let me know so I can prepare for any questions or concerns.

Just as a heads up -

Will and I have ongoing concern about the road access that I would like to bring up if we have a call.

There is not any reasonably sized concrete boom pump truck that can reach up to the portal level from the base of the dump - those are on monster semi-size trucks that are restricted to major urban areas and highways. A reasonable pump to bring to a remote site is a trailer mounted pump such as the local pumper has and we have. I have attached some representative photos below.

The concrete pumping contractor who does all the local work, and who was recommended by the local batch plant, is not fully confident his trailer mounted pump would pump from below the dump all the way up and then into the mine. We also own a very similar trailer pump, and would have the same concern. I would not want to risk the pour with an uncertain method.

Even if the pressure output is determined to be adequate, laying pipe down the slope and dealing with the high head pressure and the need to manually handle each pipe joint - heavy steel 5-inch high pressure pipe, in 10' sections - is an un-necessary safety hazard that could be avoided with some very simple and inexpensive road work to allow concrete trucks to access the portal area.

The other alternative - running pipe 1000+ feet along the road - is also problematic - in addition to the unplanned cost of buying and laying and taking up that much pipe, there is a potential for flash setting if the line is in the sun, unless we keep it wet and cool the entire time concrete is being pumped, or it just happens to be a rainy day - not something we can count on. This would also require leveling out an area for the pump and trucks at the intersection of the mine access lateral with the county road, itself a major disturbance, I think.

Not trying to be difficult, just looking for a way to approach Steve and plead for common sense - have you guys fix up the road to where concrete pumps can reach a small trailer pump on the portal bench level. That really is the safe, practical way to do this job.

The trucks will also need a reasonably close place to turn around. We also need to discuss concrete wash-out. I would assume that we can put it on the ground and it will just benefit the acid mine or acid rock drainage - or do you want to excavate a designated washout pit? There could be several yards to nearly a full truckload of excess at the end of the pumping, so consider that - just depends on exactly how much to fill the volume.

Here is a photo of what a typical small trailer mounted concrete pump looks like - this is the model that the local pumper has. Ours is very similar and we have typically done other bulkheads with pumps just like these.

[cid:image001.png@01D0BA6E.C7ACE4B0]

Assuming a slope distance of about 300', a 100 meter class boom truck would be needed.

Copied below is a photo of what one of those trucks looks like. One of these will NOT be going to the Red and Bonita within our budget, and this would take far more road work than what we are requesting to access even the bottom of the dump.

[cid:image002.png@01D0BA70.7488CBD0]

Thanks,

Mark Levin, P.E.

General Manager

Office: (303) 567-4174

MES MINING

Division of Mining & Environmental Services LLC

P.O. Box 1511, Idaho Springs, CO 80452

www.minenv.com

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delete the message. Thank you.

-----Original Message-----

From: Matt Francis [<mailto:m.francis@erllc.com>]

Sent: Thursday, July 09, 2015 5:27 PM

To: Mark Levin

Subject: RE: Request for Information

You available for conf call tomorrow? EPA is good at 8am or after 10.

Sent via the Samsung Galaxy Note® 3, an AT&T 4G LTE smartphone

----- Original message -----

From: Mark Levin <mark.levin@minenv.com<<mailto:mark.levin@minenv.com>>>

Date: 07/09/2015 5:05 PM (GMT-07:00)

To: Matt Francis <m.francis@erllc.com<<mailto:m.francis@erllc.com>>>

Cc: Perk <perk@munrocompanies.com<<mailto:perk@munrocompanies.com>>>, willbere@rvi.net<<mailto:willbere@rvi.net>>

Subject: RE: Request for Information

Hi Matt:

The response on the gauge was very helpful - we won't need to try to import a special gauge

from Germany.

We will build the thrust plates as designed (!).

I have not been in the adit. Would you guess that if we had a T past the inner form that extended about 3' total, that two 10' segments of 8-inch pipe would suffice?

Would it be possible to make an underground entry early next week to verify dimensions and angle, so I can finalize the pipe ordering?

Thanks,

Mark Levin, P.E.

General Manager

Office: (303) 567-4174

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-----Original Message-----

From: Matt Francis [<mailto:m.francis@erllc.com>]

Sent: Thursday, July 09, 2015 5:01 PM

To: Mark Levin

Subject: Fwd: Request for Information

Fast enough?

Sent via the Samsung Galaxy Note® 3, an AT&T 4G LTE smartphone

----- Original message -----

From: "Sorrenson - DNR, Allen"
<allen.sorensen@state.co.us<<mailto:allen.sorensen@state.co.us>>>

Date: 07/09/2015 4:53 PM (GMT-07:00)

To: "Way, Steven" <way.steven@epa.gov<<mailto:way.steven@epa.gov>>>

Cc: Elliott Petri
<Elliott.Petri@westonsolutions.com<<mailto:Elliott.Petri@westonsolutions.com>>>, Matt
Francis <m.francis@erllc.com<<mailto:m.francis@erllc.com>>>

Subject: Re: Request for Information

1. Thrust plate dimensions in the specification are correct.

2. Common pressure gauge, 0-600 psi, 20 psi minor graduations is acceptable.
3. The primary purpose of the 3/4" line is monitoring and sampling; injection is a secondary purpose. The pressure gauge will be installed on the 3/4" line with globe valves on both sides, and the "Y" and check valve will be installed in accordance with the specification.
4. The distance from the back form of the bulkhead to the cofferdams on each branch of the adit will be as small as possible without causing the maximum height and width of bulkhead to be exceeded, but this distance has not been measured.
5. The intersection angle of the two headings inby the bulkhead were shot with a compass, so it cannot be said that the angle is very close to the 45 degrees shown on the map.

On Thu, Jul 9, 2015 at 3:44 PM, Way, Steven

<way.steven@epa.gov<<mailto:way.steven@epa.gov><<mailto:way.steven@epa.gov>%3c<mailto:way.steven@epa.gov>>>>
wrote:

Allen - we need your input on the MES questions.

Sent from my iPhone

Begin forwarded message:

From: Matt Francis

<m.francis@erllc.com<<mailto:m.francis@erllc.com><<mailto:m.francis@erllc.com>%3c<mailto:m.francis@erllc.com>>>>

Date: July 9, 2015 at 3:38:11 PM MDT

To: "Way, Steven"

<way.steven@epa.gov<<mailto:way.steven@epa.gov><<mailto:way.steven@epa.gov>%3c<mailto:way.steven@epa.gov>>>>

Subject: Fwd: Request for Information

Sent via the Samsung Galaxy Note® 3, an AT&T 4G LTE smartphone

----- Original message -----

From: Mark Levin

<mark.levin@minenv.com<<mailto:mark.levin@minenv.com><<mailto:mark.levin@minenv.com>%3c<mailto:mark.levin@minenv.com>>>>

Date: 07/09/2015 3:36 PM (GMT-07:00)

To: Matt Francis

<m.francis@erllc.com<<mailto:m.francis@erllc.com><<mailto:m.francis@erllc.com>%3c<mailto:m.francis@erllc.com>>>>

Cc:

willbere@rvi.net<<mailto:willbere@rvi.net><<mailto:willbere@rvi.net>%3c<mailto:willbere@rvi.net>>>>

Subject: Request for Information

Hi Matt:

I am in the midst of going through the details on the piping, as the stainless steel is a long lead time item, and especially the shop fabricated items.

Several questions:

- 1) $\frac{3}{4}$ inch Line and 8-inch line - Thrust plates: The plates seem very large for a $\frac{3}{4}$ " line and slightly small for an 8" line.

The specifications appear to call for 10"x10"x1/4" thrust plates on the $\frac{3}{4}$ " line and 14.5" x 14.5"x1/2" thrust plates on the 8" line. The OD of ANSI standard $\frac{3}{4}$ " SS pipe is 1.05" and of the 8" pipe is 8.625". The plates thus extend a minimum of 4.475" from the $\frac{3}{4}$ " line (4.26 times OD) and only extend 2.9375" inches from the perimeter of the 8" line (0.34 times OD). Are we understanding this correctly? If so, can you ask the designer to verify that the thrust plate dimensions are correct?

- 2) Pressure Gauge - The specification calls for a 0-600 psi gauge with 2 psi minor graduations (about 293 minor lines, less major lines). Our suppliers are unaware of any common analog mechanical gauges that come with that resolution. Is the designer aware of one that has this resolution and which is likely to be commercially stocked ?

Alternatively, we have contacted a top tier gauge specialty company, Wika - they can provide a 10" dial diameter, stainless steel wetted parts gauge from Germany with 20 psi major graduations and 1 psi minor graduations - lead time AFTER they get a firm order from a distributor is generally 30 days and potentially could be up to about 45 days plus time for customs clearance and then domestic shipment time to the distributor. Or, they can custom print a gauge dial with the required 2 psi graduations and that will take additional

time.

See attached. This gauge would appear to exceed the specification. We would need to launch an order very quickly to avoid delay.

Another alternative at extra cost (about \$1500) is we can more quickly source an electronic digital gauge which provides high accuracy but I question the value in light of the other electronic monitoring instruments already being installed.

Finally, we could readily provide a common commercially available 0-600 psi gauge which would typically have lower psi resolution - typically 20 psi minor scale and 100 psi major scale increments are common for a 0-600 range for small diameter gauges. The higher accuracy readings would presumably come from the electronic instruments.

Please indicate which direction we should pursue and I will move forward.

3) Can the check valve and "Y" fitting on the wet side of the $\frac{3}{4}$ line be omitted if a sampling "T" and valve is installed in the same line that the pressure gauge tapped into the 8-inch line? This could potentially provide a more reliable means of sampling in that it would avoid any future issue of mechanical problems with an inaccessible check valve. Prior bulkhead installations have utilized such as system. (For clarity, in that case, the $\frac{3}{4}$ " line would serve only as an injection line.)

4) Is there an actual distance measurement from the planned back form of the bulkhead to the cofferdams on each branch of the adit?

5) Is the intersection angle actually very close to 45 degrees as shown on the map ? If so, we can use a standard stainless steel "T" and a flanged 45. If not, a custom "Y" will need to be fabricated. This is long lead time.

In anticipation of a prompt response, I remain,

Mark Levin, P.E.

General Manager

Office: (303) 567-4174<tel:%28303%29%20567-4174>

[cid:image001.png@01D0997E.116512B0]

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Allen C. Sorenson

Project Manager/Geological Engineer

Inactive Mine Reclamation Program

[https://googledrive.com/host/0B8gdupL6hOgVVjN5Y0w4NIJDOEk/images/co_dnr_div_drms_300_rgb_em

P 303.866.3567x8143 | F 303.832.8106 | C 303.263.7886

1313 Sherman Street #215, Denver, CO 80203

allen.sorenson@state.co.us<<mailto:allen.sorenson@state.co.us><<mailto:allen.sorenson@state.co.us>%3cmailto:
|

www.mining.state.co.us<http://www.mining.state.co.us/><http://www.mining.state.co.us><http://www.mining.s>

<image001.png>

<image002.png>